#### PATENT COOPERATION TREATY

## **PCT**

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

	<del></del>						
Applicant's or agent's file reference B03/0145PC	FOR FURTHER A	ACTION	See Form PCT/IPEA/416				
International application No.	International filing d	ate (day/month/year)	Priority date (day/month/year)				
PCT/EP2004/0031	24.03.200	4	25.03.2003				
International Patent Classification	(IPC) or national classification and	IPC					
Applicant	· · · · · · · · · · · · · · · · · · ·						
BASF AKTIENGESELLSCHAFT							
	ational preliminary examination rensmitted to the applicant according		international Preliminary Examining Authority				
2. This REPORT consists of	of a total of 5	sheets, including	g this cover sheet.				
3. This report is also accord	npanied by ANNEXES, comprising	:					
a. (sent to the d	a. (sent to the applicant and to the International Bureau) a total of 4 sheets, as follows:						
sheets sheets	sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative						
Instruc	•	which this Authority con-	siders contain an amendment that ones beyond				
	sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.						
b. (sent to the l	International Bureau only) a total o	f (indicate type and number	r of electronic carrier(s))				
	•,	••					
	related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).						
4. This report contains ind	ications relating to the following ite	ems:					
Box No. I	Basis of the report						
Box No. II	Priority						
Box No. III	Non-establishment of opinion wit	h regard to novelty, invent	tive step and industrial applicability				
Box No. IV	Lack of unity of invention						
Box No. V	Reasoned statement under Article citations and explanations suppor		elty, inventive step or industrial applicability;				
Box No. VI	Certain documents cited						
Box No. VII	Certain defects in the international	al application					
Box No. VIII	Certain observations on the intern	national application					
Date of submission of the demand	i	Date of completion of th	us report				
Name and mailing address of the	IPEA/EP	Authorized officer					
Facsimile No.		Telephone No.					

Translation

#### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/003108

Box	No. I Basis of the report		
1.	With regard to the language, this report is based on the internindicated under this item.	national application in the language in v	which it was filed, unless otherwise
	This report is based on translations from the original lar which is the language of a translation furnished for the		,
	international search (Rule 12.3 and 23.1(b))		
	publication of the international application (Rule	12.4)	
	international preliminary examination (Rule 55.2	and/or 55.3)	
2.	With regard to the elements of the international application, receiving Office in response to an invitation under Article 1 this report):  the international application as originally filed/furnishe	4 are referred to in this report as "or	
	the description:	u	
	-		as originally filed/furnished
		received by this Authority on	as originally mediumshed
	pages*	<u> </u>	
	pages*	received by this Authority on	
	the claims:		
	nos.		as originally filed/furnished
	nos.*		r with any statement) under Article 19 25.01.2005 with the
	nos.* 4-12	received by this Authority on	letter of 24.01.2005 14.06.2005 with the
	nos.* 1-3	received by this Authority on	
	the drawings:		
	sheets		as originally filed/furnished
	sheets*	received by this Authority on	
ļ	sheets*	received by this Authority on	
	a sequence listing and/or any related table(s) – see Sup	plemental Box Relating to Sequence I	isting.
3.	The amendments have resulted in the cancellation of:		
	the description, pages		
	the claims, nos.		
		· · · · · · · · · · · · · · · · · · ·	<del></del>
Ì			
	any table(s) related to sequence listing (specify):		
4.	This report has been established as if (some of) the a		listed below had not been made, since
"	they have been considered to go beyond the disclosure		
	the description, pages		
	the claims, nos.		
	the drawings, sheets/figs		
	the sequence listing (specify):		
	any table(s) related to sequence listing (specify):		
*	If item 4 applies, some or all of those sheets may be marked	"superseded."	

#### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/003108

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement				
1.	Statement			
	Novelty (N)	Claims	1-12	YES
		Claims		NO
	Inventive step (IS)	Claims	1-12	YES
		Claims		NO
Industrial applicability (IA)	Claims	1-12	YES	
	Claims		NO	

2. Citations and explanations (Rule 70.7)

Reference is made to the following documents:

- D1: US-A-2 976 247 (TRUITT JAMES K) 21 March 1961 (1961-03-21)
- D2: WO 02/08354 A (BASF AG; WENDEROTH BERND (DE); SCHAEKER KARLHEINZ (DE)) 31 January 2002 (2002-01-31)
- 1. The present application meets the requirements of PCT Article 33(1) because the subject matter of claims 1-12 is novel (PCT Article 33(2)).
- 1.1 Document D2 discloses (the references between parentheses refer to that document) antifreeze concentrates based on alkylene glycols or derivatives thereof or on glycerol, containing a) 0.05 to 10 wt.%, relative to the total quantity of concentrate, of one or more carboxylic acid amides and/or sulphonic acid amides, b) 0.05 to 5 wt.%, relative to the total quantity of concentrate, of one or more aliphatic, cycloaliphatic or aromatic amines with 2 to 15 C atoms, which may also contain ether oxygen atoms or hydroxyl groups,

International application No.
PCT/EP2004/003108

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

and/or c) 0.05 to 5 wt.%, relative to the total quantity of concentrate, of one or more monocyclic or bicyclic, unsaturated or partially unsaturated heterocycles with 4 to 10 C atoms, which may be benzanellated and may carry additional functional groups (claims 1 and 2). The alkylene glycols preferably consist of ethylene glycol or propylene glycol or of mixtures of alkylene glycols or of glycerol with ethylene glycol or propylene glycol, which each contain at least 95 wt.% ethylene glycol and/or propylene glycol and/or glycerol (claim 6).

Also claimed are ready-to-use aqueous coolant compositions (claim 7) and the use of the antifreeze concentrates to produce aqueous coolant compositions for magnesium and/or aluminium.

Monoethylene glycol usually contains a certain amount of diethylene glycol (see D1, examples 1 and 2). As a result of the absence of diethylene glycol, the subject matter of claims 1, 11 and 12 is novel over D2.

2. In the compositions as per D2, polyethylene glycol is present only as an impurity. No effect of this compound is mentioned. It is therefore not obvious to a person skilled in the art to use the claimed polyglycols in known antifreeze (concentrates) in order to improve the protection against corrosion of magnesium (see table 2 of the application). Claims 1 to 12 therefore involve an

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/003108

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	inventive step.
3.	The application is industrially applicable, since
	it can be used in the field of corrosion
	protection.